



||| A STEP AHEAD IN DIGITAL TELEVISION

REDUNDANCY OPTICAL SWITCH for HFC & FTTH LARGE CATV & SAT DISTRIBUTIONS

mod. **ROS-2**



AUTOMATIC SWITCHING **BETWEEN 2 OPTICAL FIBER**

LOW INSERTION LOSS and FAST SWITCHING TIME

FULL REMOTE CONTROL and SETTINGS THROUGH SNMP & WEB

FULL ALARM & DATA LOGGER SYSTEM on BOARD

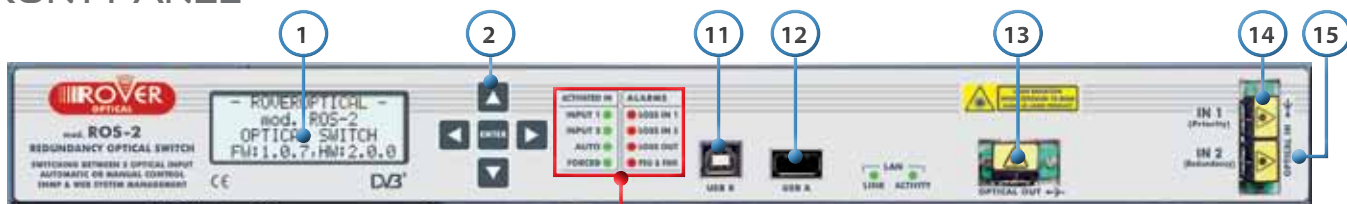
**ADVANCED
TECHNOLOGY**

FOR PROFESSIONAL
CABLE & BROADBAND
NETWORKS

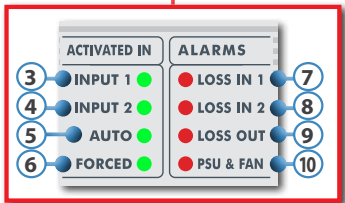


REDUNDANCY OPTICAL SWITCH

FRONT PANEL

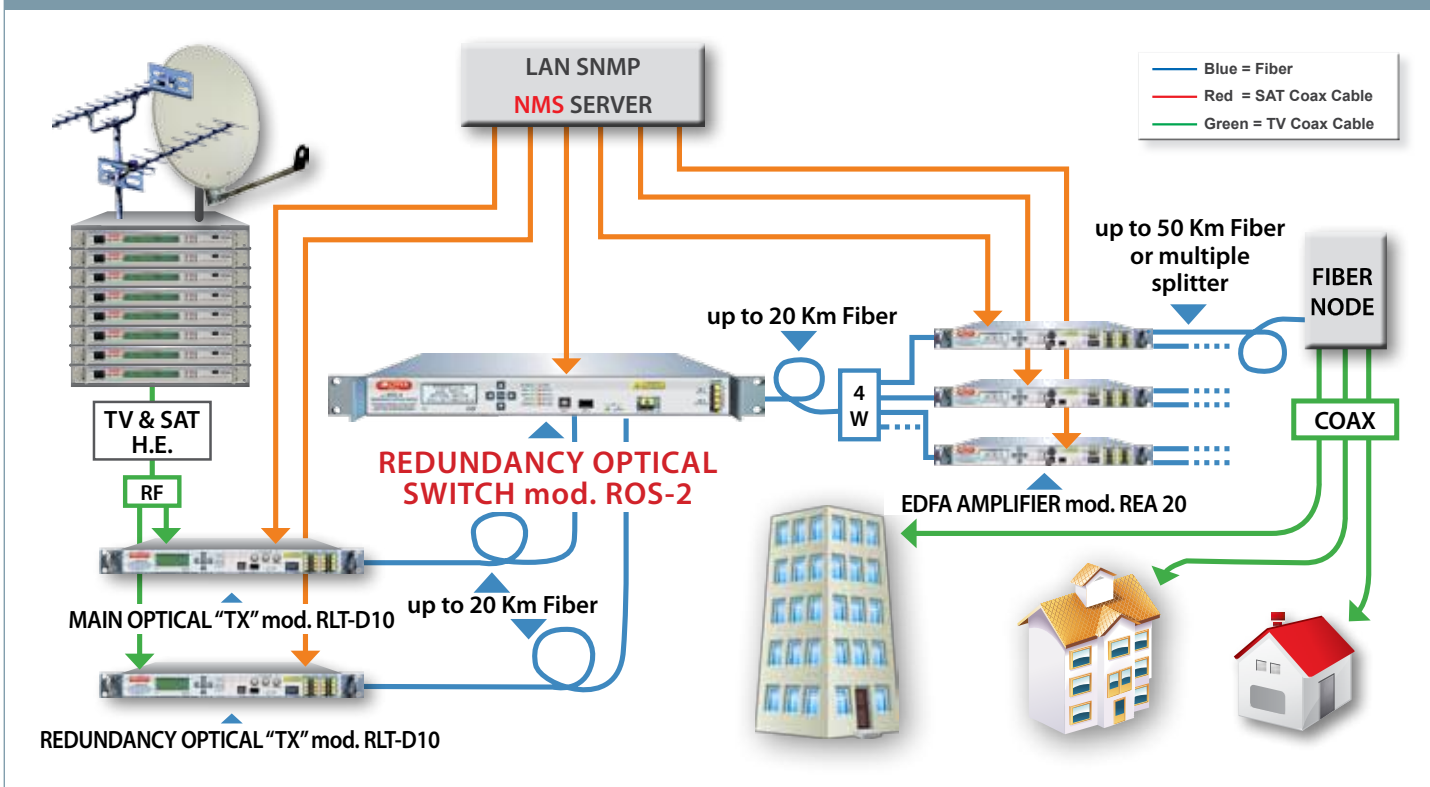


REAR PANEL



- | | | |
|---|---|--|
| 1. LCD Display | 9. LED, Optical Pwr Loss at OUT, alarm (opt.) | 17. Wired Remote Control (opt.)
<i>connect. = "FK-MC 0,5/5-ST-2,5" by PHOENIX CONTACT</i> |
| 2. Keys | 10. LED, PSU & FAN alarm | 18. LAN MANAGEMENT port |
| 3. LED, Input 1 activated | 11. USB-B port | 19. P.S.U. B ON-OFF Switch (opt.) |
| 4. LED, Input 2 activated | 12. USB-A port | 20. P.S.U. A ON-OFF Switch |
| 5. LED, Auto switch activated | 13. Shuttered Optical Output | 21. P.S.U. DC 48 V INPUT (opt.) |
| 6. LED, forced Remote switch | 14. Shuttered Optical Input 1 | 22. PSU-A, 230 V AC mains & Fuse |
| 7. LED, Optical Pwr Loss at IN 1, alarm | 15. Shuttered Optical Input 2 | |
| 8. LED, Optical Pwr Loss at IN 2, alarm | 16. Hot swap fan | |

OPTICAL TX & FIBER REDUNDANCY SWITCH EXAMPLE



DESCRIPTIONS

Redundancy Switch between two optical fiber.
Designed for CATV long-distance transmission and large FTTH distribution networks (PON).

Optic Inputs Signals are continuously measured and monitored.

Configurable settings can decide which Optical Input has to be selected, these settings can be:

- Automatic,
- Automatic (through the remote Network Management),

- Locally through wired Remote Control (opt.).
- User friendly USB port for SW up-upgrades and LAN port for full management & Data Logger through WEB Browser & SNMP.

There are several ways to set and verify Functions, Alarms & Data Logger:

- with WEB Browser through the LAN Port,
- with SNMP through the LAN Port,
- with keys and LCD Display, IP address Set & Alarm reading only.

MAIN FEATURES

- Independent power measurement of both Optical Input
- 1240 to 1640 nm high reliability and low loss fiber optic switch
- Wired Remote control board (opt.)
- Automatic or manual switching
- LEDs switching Status indication and alarms on front panel
- LCD Display and Keys on the front panel
- 2 USB ports for easy SW up-upgrades and memory stick
- LAN port for settings and full SNMP management
- LAN port for settings and Web Browser operation
- Full data Logger for status and alarm
- SC/APC shuttered optical connector
- Redundancy Power Supply: AC+1 DC or 2AC (opt.)
- Very slim design, only 1 Unit 19" Rack

TECHNICAL SPECIFICATIONS

OPTICAL

- | | | | |
|------------------------------|--|------------------------------|---------------------|
| • Optical Signal wavelength: | 1240 - 1640 nm | • Switch speed: | < 1 m S |
| • Optical Input Power range: | - 8 to + 12 dBm (max 20) | • Optical Return loss: | > 50 dB |
| • Optical Insertion loss: | < 1 dB (without Connector Loss) 1,5 dB with option 3 | • Optical Input Isolation: | > 60 dB (typ. 75) |
| • Expected switch cycles: | 10 ⁹ | • Optical Connector: | SC/APC with SHUTTER |
| | | • Optical Single mode fiber: | 9 / 125 μm G652 |

ALARMS and MONITORS

- LEDs Optical Switch status indication
- Power Supply and Fans
- Optical Power Loss at the output (opt.)
- Optical Power Loss at both inputs
- Triple color LEDs on front panel
- SNMP & WEB System on board
- Wired remote control (opt.)
- LCD display and Keys on front panel
- Data Logger for Status and Alarms

PERIPHERALS

- LAN ETHERNET 10/100 port: HTML WEB browser for local or remote settings, full SNMP for Monitoring, alarms & Data Logger
- USB A & B port: For easy SW up-upgrades & memory stick
- Wired Remote Control via insulated Contact: 1 IN & 2 OUT, for Remote control and alarm monitoring (opt. board)

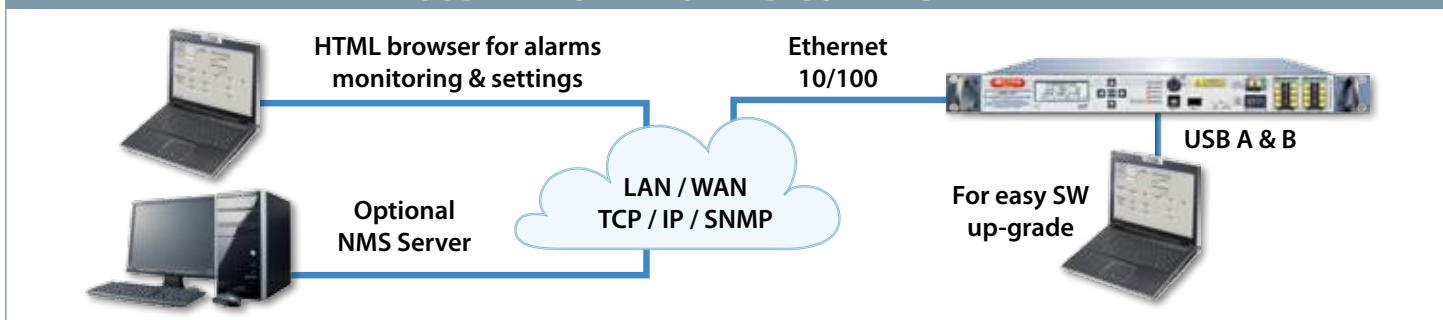
GENERAL

- | | | | |
|----------------------------|----------------------------|---|---|
| • Power supply: | AC 230 V (or DC 48 V opt.) | • Operation temperature: | - 5 to 50° (humidity 90%) |
| • Redundancy power supply: | 1AC +1DC or 2 AC (opt.) | • Storage temperature: | - 20 to 70° |
| • Power consumption: | 5 W | • Equipment operation environmental conditions: | Class 3,1 acc. ETS 300 019-1-3 (temperature controlled locations) |
| • Enclosure: | 1 Unit 19" Rack | | |
| • Weight: | 3 Kg | | |

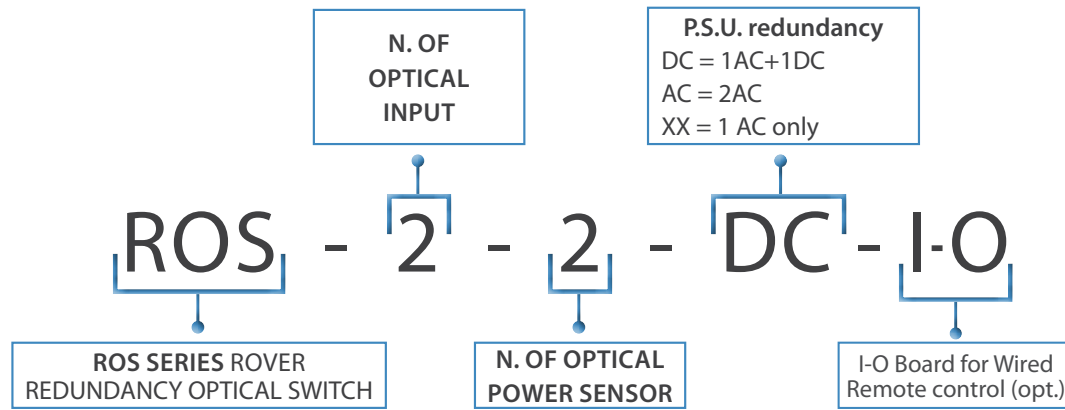
SAFETY

- | | | | |
|-----------------|--|--------|-----------|
| • Safety: | EN50083-1 | • EMC: | EN50083-2 |
| • Laser safety: | (IEC 60825) Class 3R, see yellow label | | |

USB-LAN SNMP & WEB CONNECTIVITY



ORDERING CODE DEFINITION



ORDERING MODEL / CODE EXAMPLE

MODEL / CODE	DESCRIPTION	APPLICATION
ROS-2-2-DC	Low Loss Redundancy Optical Switch, with 2 optical IN and 1 optical OUT, with 2 optical power sensor, opt. redundancy DC power supply (total 1 AC+1 DC)	Long distance CATV and large FTTH PON Network
ROS-2-2-XX	Low Loss Redundancy Optical Switch with 2 optical IN and 1 optical OUT, with 2 optical power sensor, only 1 AC power supply	Long distance CATV and large FTTH PON Network

OPTIONS

ITEM	DESCRIPTION	CODE DEFINITION
P.S.U. REDUNDANCY	Second PSU 230 Vac (Max N. 2 AC)	AC
	Second PSU 48 Vdc (Max N. 1 AC + 1 DC)	DC
I-O BOARD	Wired remote Control Via insulated Contact	I-O
OPTICAL OUT PWR SENSOR	Optical Power Sensor for Output Power Measurement	3

ROVER OPTICAL PRODUCTS RANGE

TX **RLT-C9**

CVDM HIGH POWER, ULTRA WIDE BAND CATV & SAT
47-2.700 MHZ OPTICAL LASER TRANSMITTER 9 dBm

SWITCH **ROS-2**

REDUNDANCY OPTICAL SWITCH

AOT-STC

APARTMENT OPTICAL RECEIVER/TERMINATION
CATV & SAT WITH AGC

TX **RLT-D10**

DVDM HIGH POWER, ULTRA WIDE BAND CATV & SAT
47-2.800 MHZ OPTICAL LASER TRANSMITTER 10 dBm

SAT PROC. **RSP-30-4/8**

WIDE BAND SATELLITE TRANSPONDER PROCESSOR FOR NEW EXTENDED BAND LNB
WITH 8 INPUT FROM 250 TO 2.350 MHZ

RX

COR-STC

CONDOMINIUM OPTICAL FIBER NODE RECEIVER
CATV & SAT WITH AGC

EDFA **REA-20**

EDFA OPTICAL AMPLIFIER 20 dBm, FROM 1 TO 8 OUTPUT

RLT-C7

MODULAR OPTICAL LASER TRANSMITTER 7 dBm

REA-C20

MODULAR EDFA OPTICAL AMPLIFIER 20 dBm

RLT-C7-WB-SAT

OPTICAL TX EXT. L-BAND

MOR-WB-SAT

OPTICAL RX EXT. L-BAND WITH AGC

V.4.1 7-11-17



Product
made in Italy by
Rover Broadcast.com

CERTIFICATES N°
1263 ISO 9001
1264 ISO 14001
1265 BS OHSAS 18001



Specifications and features are subject to change without notice.

RO.VE.R. Laboratories S.p.A.
Via Parini, 2 - 25019 Sirmione (BS) Italy
info@roverinstruments.com • www.roverbroadcast.com